

FIRE PROTECTION GUIDE

SECTION C-1

EXIT & OTHER FIRE SAFETY SIGNS



EXIT SIGNS

INTRODUCTION:

BASIC FIRE SAFETY PRINCIPLES STATES THAT: "Access to exits shall be marked by approved, readily visible signs in areas where the exit or way to reach the exit is not readily apparent to the occupants. Every sign must be placed and illuminated so that the words or symbols can be read from a distance not to exceed 100 feet.

There are a multitude of types and styles of exit signs found in Mission facilities around the world. Many signs display instructions in the local language, some are pictographic, while others are hand painted. Many do not use the appropriate colors or lettering size. OBO/OPS/FIR fire protection officers have encountered signs that may be considered amusing, unless you are desperately trying to find an exit through heavy smoke and heat. During an inspection, a fire protection officer noted a sign indicating "EXIT" above the door, a sign stating "NO EXIT" on the middle of the same door, and a sign stating "EXIT", with an arrow pointed to the left affixed lower on the same door. These exit signs were improperly installed and may be confusing to building occupants. This section details the department's policy regarding exit and means of egress signage.

A. EXIT SIGNAGE:

Standards for selection and installation of exit signage are contained in the National Fire Protection Association (NFPA) Life Safety Code 101. In general, these standards require that exit signs be:

1. Exit signage shall be self-illuminated via an internal light source of specified candlepower and duration provided by either electrical power and/or approved battery:
 - a. The building electrical backup power source, provided an emergency generator is employed to provide full power within 10 seconds.
 - b. An integral battery backup source.

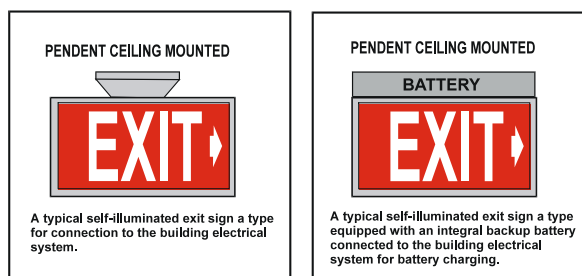
2. Exit signage shall be illuminated by an external light source which is capable of providing uninterrupted lighting during power outage.
3. Exit signage shall be provided in sufficient numbers and so located as to establish and maintain clearly marked exits and exit ways.
4. Exit signage shall have contrasting face colors with lettering of specified size.
5. Exit signage shall be installed in a manner similar to those depicted on pages 5 and 6 of this section.

Exit signs required in NFPA 101 may be "Photo Luminescent" signs (described on the following pages for existing buildings).

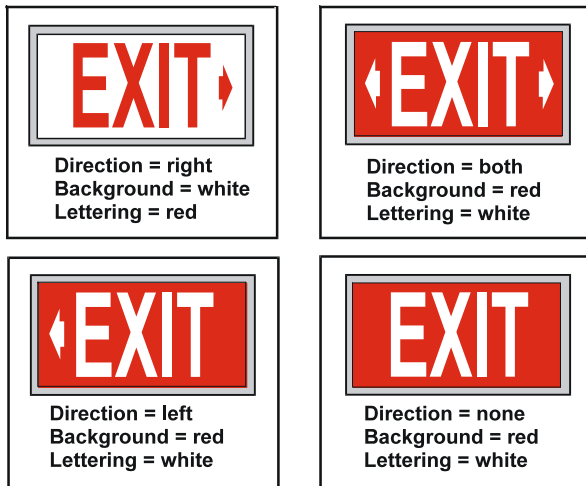
B. SIGNAGE CONTINUITY:

Exit signage shall be installed in newly constructed buildings, or in buildings that underwent major modifications and additions.

The lighted exits shown below are required for installation in construction projects of **new buildings, major building modifications and additions.**



There are several permissible variations in exit sign configurations.



C. EXIT SIGNAGE FOR EXISTING BUILDINGS:

1. OBO/OPS/FIR has adopted the concept of using a standard emergency sign for installation in situations that do not require signs described in previous sections. The sign style selected is "Photo Luminescent" with some illustrations and words displaying the appropriate message as illustrated on the following pages. The signs selected are manufactured on a "luminous" material that absorbs light in well-lighted areas and "glows in the dark" when the area becomes dark. Most photo luminescent signs have an obvious advantage in that they are non-lingual. Luminous signs also have other advantages including the following: they are easy to install, they require no electricity, they require no maintenance, and they can be used in most signage applications.
2. Photo luminescent signs illustrated and described on the following pages may be installed in addition to illuminated signs if necessary to ensure adequate visual coverage. Placement of pictographic signs is not required if illuminated signs meet NFPA 101 standards and are sufficient and functional. The general application of Photo luminescent signs will apply to buildings not equipped with signs as described above. In many cases buildings occupied by the Department overseas are leased. Therefore, it can be expected that they

may not be equipped with signs meeting NFPA 101 standards. In situations such as this, pictographic signs may suffice unless a representative of OBO/OPS/FIR recommends differently. There are some areas within buildings in which the nature of the area may dictate that illuminated signs be utilized. For example: auditoriums, which are normally dimly lit and frequently darken completely, and basement corridors, which may be dimly lit.

3. The face of the photoluminescent sign shall be illuminated when the building is occupied. There are requirements for illumination during a power outage.
4. A recommendation found in many fire and life safety inspection reports, calls for the installation of "international emergency exit signs". This recommendation refers to the preferred pictographic/luminous signs described. These signs are provided by OBO/OPS/FIR where required by code and when requested by post.
5. There are two basic types of exit signs:
 - a. *Exit door signs:* placed on/or over exit doors to designate an emergency exit
 - b. *Directional exit signs:* placed on walls, or if necessary, suspended from ceilings to indicate the most direct route to an emergency exit.

The exit and emergency signs on the following are recommended and available (the actual signs are printed in medium green and white).



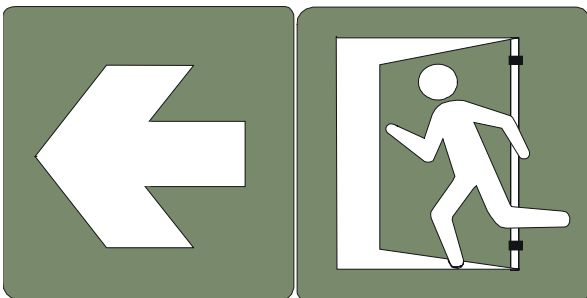
Exit door swinging right. Can be placed on or above doors or in corridors to indicate exit direction.



Exit door swinging left. Can be placed on or above doors or in corridors to indicate exit direction.



Directional arrow can be used in corridors in conjunction with international exit signs to indicate direction of travel to exit door.



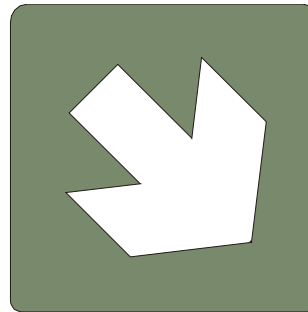
Exit doors and arrows used in combination to indicate the direction to the nearest exit in appropriate direction. 2 separate signs:



Exit Stairway sign



Not an exit



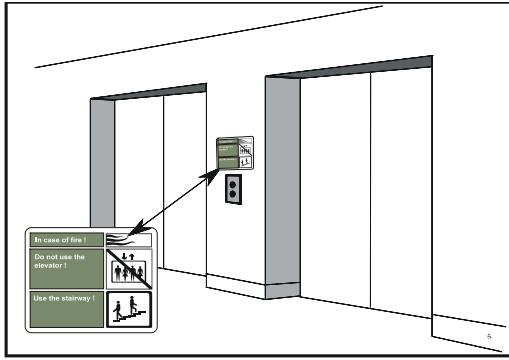
Down arrow, used in conjunction with exit stairway signs when required.



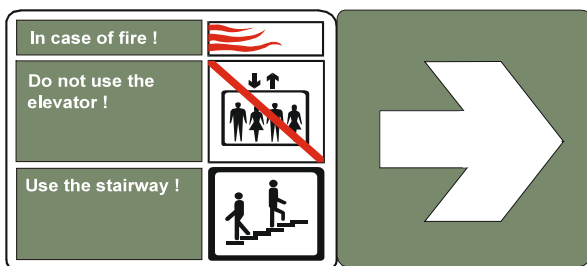
Example of signs listed above.



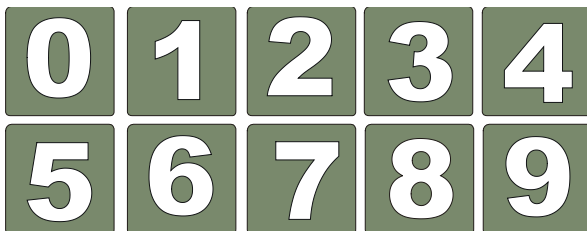
DO NOT USE ELEVATOR placed at elevator doors as shown following



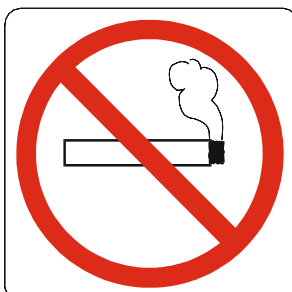
Placement of "Do not use Elevator"



Arrow sign used to direct occupants to the exit stairways



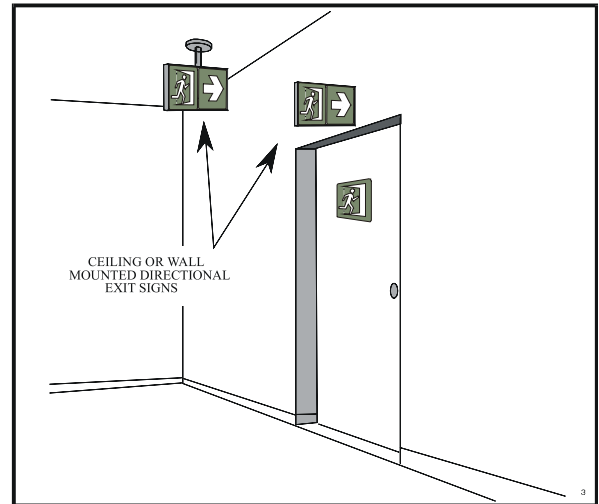
Floor level numbers for **stairwells**



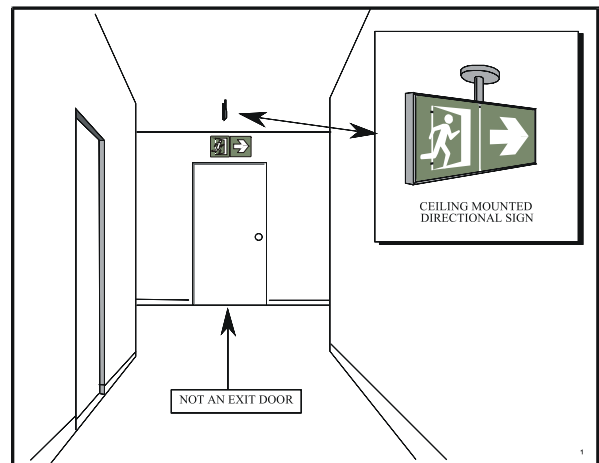
"No Smoking" **Sign**

D. PLACEMENT OF SIGNS

The following signs are shown in mounting frames attached to ceilings, walls or doors where necessary for visibility. Or simply attached to walls or doors with double-stick tape.



For installation in corridors, particularly at corridor junctions. (2 separate signs)

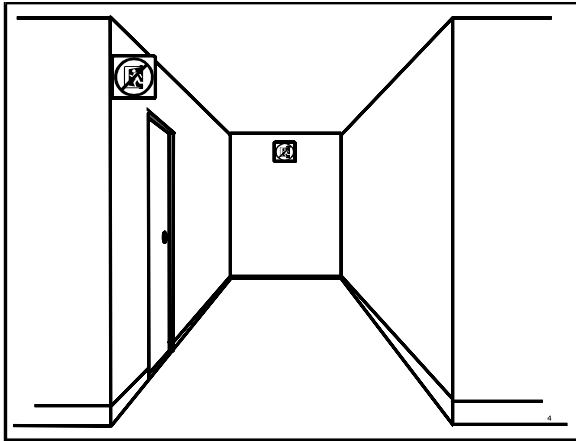


Exit sign and arrow directing occupants to the right. For installation on corridor walls particularly at corridor junctions (2 separate signs)

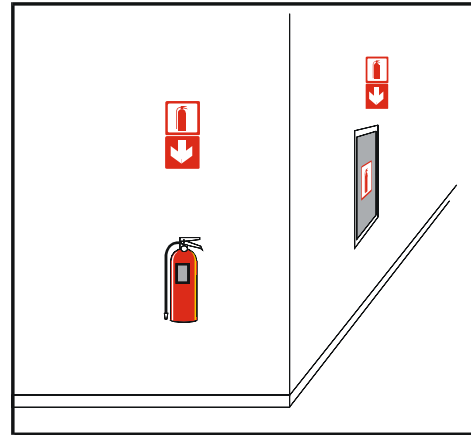
E. MOUNTING :

Exit door signs should be placed **on or directly above** exit doors. Pendant or wall mounted signs should be installed perpendicular to the door using either ceiling pendant mount or wall mount.

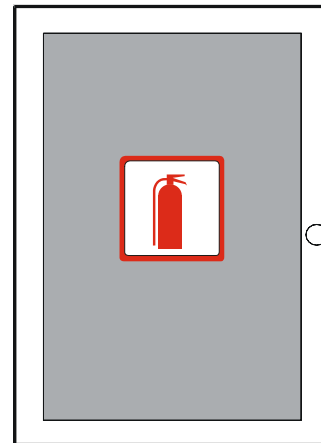
Directional exit signs should be placed at corridor junctions on walls or ceilings to provide directional instructions from any point in the corridors.



The above depicts a "dead-end" corridor which has been marked with a "not an exit" sign. This marking is very important if there are dead-end corridors in a building that occupants might wrongly assume to be an exit corridor in fire evacuation.



Fire extinguisher signs should be mounted on walls where the extinguisher unit is not readily visible from the corridor, above the extinguisher or extinguisher cabinet. This application should also be used in storerooms, warehouses or other large areas to indicate extinguisher locations when the units themselves may not be easily visible.



Sign on an extinguisher cabinet

F. SPECIAL APPLICATION SIGNS:

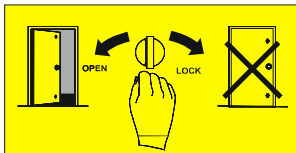
**THIS DOOR MUST REMAIN
UNLOCKED DURING
BUSINESS HOURS**

In some situations, required exit doors are equipped with a variety of locks to provide after-hours security. These exit doors must remain "unlocked" during business hours to ensure that they are usable as exits during these hours.

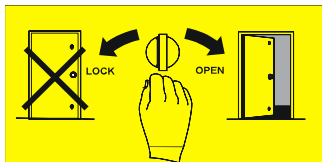
Such exit doors should be marked with exit signs and posted with additional signs like the one shown above. Post must establish a policy to ensure that these doors remain unlocked during business hours as a standard daily operating procedure.

G. THUMB TURN LOCKING DEVICES:

Many exit doors are equipped with "thumb turn" type locks located at the top and bottom and center of each door. These locks must not impede egress and the doors must be unlocked when the building is occupied. The thumb turn locks must be clearly identified with labels such as those shown here. Care must be taken to ensure that the correct operation, "right" or "left" turning, is indicated since upper and lower locks may operate in different directions to unlock. Lock labels may be obtained from OBO/OM/FIR fire protection specialist during an inspection visit.



Open Left



Right Open

H. TIME DELAY PANIC HARDWARE:

In some situations security considerations may require that exit doors equipped with panic hardware be fitted with "time-delay" hardware with an integral or remote alarm. This hardware functions much the same as other panic hardware with the exception of the addition of a time-delay feature, perhaps an alarm. When the panic bar is pushed, the alarm sounds and a time-delay device actuates. The delay device can be set for various time periods, but should not exceed 15 seconds. Some installations involve a remote alarm situated in an MSG security post. All time-delay hardware installations should be marked with a sign as shown below, mounted just above the panic bar.



REFERENCES:

The reference material for this section of the OBO/OPS/FIR Fire Protection Guide was taken, primarily from NFPA 101, *Life Safety Code*.